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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/064,073 | 06/07/2002 | Theodorus Lambertus Hoeks | 08CS5682-1 | 3895 |

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| EXAMINER |
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WOODWARD, ANA LUCRECIA

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| ART UNIT | PAPER NUMBER |
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1711

DATE MAILED: 07/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 10/064,073 | Applicant(s) HOEKS ET AL. | |
| | Examiner Ana L. Woodward | Art Unit 1711 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on April 25, 2006
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 4, 6, 14, 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 7-13 & 16-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election of potassium diphenylsulfon-3-sulfonate in the reply filed on April 25, 2006 is acknowledged.
2. Claims 4, 6, 14 and 15 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on April 25, 2006.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
4. Claims 1, 2, 8-12, 16, 17, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 4,289,685 (Druschke et al) as per reasons of record.

Druschke et al disclose a process for producing flame resistant polycarbonate compositions comprising:

compounding an aqueous solution of a flame retardant salt with a polycarbonate/organic solvent system using high-pressure homogenizers, e.g., twin-screw extruder (column 6, line 9) and similar mixing devices. The flame retardant salts include alkali, alkaline and transition metal salts of organic and inorganic acids. These salts can be incorporated in amount of 0.001 to 5% by weight, based on the total weight of polycarbonate and flame retardant salts. Table II evinces specific flame retardant salts recited in the present claims.

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The compositions can be processed into films by customary methods such as by extrusion (column 4, lines 59-63).

In essence, the disclosure of the reference differs from the above-rejected claims in not expressly exemplifying the production of a sheet. It would have been obvious to one having ordinary skill in the art to have produced a fire resistant film or sheet by extrusion of patentees' composition with the reasonable expectation of success. The fact that applicant has recognized another advantage, i.e., reduction of surface inclusions, which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Given that the use of extruders apply shear to applicants' components during compounding (page 10 specification), it would be expected that the use of the same or similar devices would similarly provide shear during the compounding step in the reference.

5. Claims 1-3, 5, 7-13 and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 4,113,695 (Mark) as per reasons of record.

Mark discloses a process for producing flame resistant polycarbonate compositions having good optical properties comprising:

compounding an aqueous solution of a flame retardant salt with a polycarbonate by tumbling the ingredients together in a tumbler followed by extrusion (Tables I and II). The flame retardant salts include alkali and alkaline metal salts of organic acids. These salts can be incorporated in amount of 0.001 to about 2.0 parts, per hundred parts of polycarbonate. Tables I and II evince specific flame retardant salts recited in the present claims.

The compositions can be processed into sheets (column 2, lines 3-9).

In essence, the disclosure of the reference differs from the above-rejected claims in not expressly exemplifying the production of a sheet. It would have been obvious to one having ordinary skill in the art to have produced a fire resistant film or sheet by extrusion of patentees' composition with the reasonable expectation of success. The fact that applicant has recognized another advantage, i.e., reduction of surface inclusions, which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Given that the use of extruders apply shear to applicants' components during compounding (page 10 specification), it would be expected that the use of the same or similar devices would similarly provide shear during the compounding step in the reference.

6. Claims 1, 8-12 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 4,600,742 (Higgins) as per reasons of record.

Higgins discloses flame retardant polycarbonate compositions comprising a minor amount (preferably up to about 10% by weight) of at least one metal sulfonate salt. Suitable preparatory processes include admixing the polycarbonate with the metal salt in the form of an aqueous solution by means of tumblers, mixers, etc (examples). The compositions can be processed into films by extrusion (column 9, lines 32-35).

In essence, the disclosure of the reference differs from the above-rejected claims in not expressly exemplifying the production of a sheet. It would have been obvious to one having ordinary skill in the art to have produced a fire resistant film or sheet by extrusion of patentees'

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composition with the reasonable expectation of success. The fact that applicant has recognized another advantage, i.e., reduction of surface inclusions, which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Given that the use of extruders apply shear to applicants' components during compounding (page 10 specification), it would be expected that the use of the same or similar devices would similarly provide shear during the compounding step in the reference.

7. Claims 3, 5, 7, 11, 13 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 4,289,685 (Druschke et al) in combination with U.S. 4,113,695 (Mark), both described hereinabove, as per reasons of record.

8. Claims 11, 13 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 4,600,742 (Higgins) in combination with U.S. 4,113,695 (Mark), both described hereinabove, as per reasons of record.

Response to Argument

9. Applicant's amendments filed April 25, 2006 have been fully considered but are not persuasive.

It is maintained that the application of shear during compounding would necessarily occur in Druschke et al's process. This is because Druschke et al utilize the same mixing devices, e.g., twin-screw extruders, which are described in the present specification for application of shear to the components.

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In response to applicant's argument that Mark and Higgins are silent regarding the surface qualities of extruded sheets, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

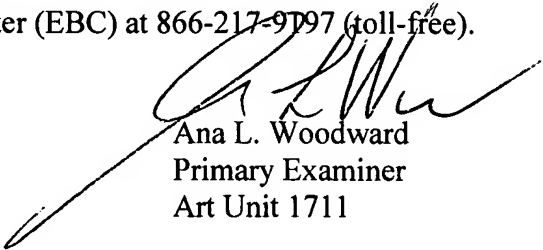
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ana L. Woodward whose telephone number is (571) 272-1082. The examiner can normally be reached on Monday-Friday (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9797 (toll-free).



Ana L. Woodward
Primary Examiner
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